

Better decision making. Faster performance. Easier than ever. Anywhere on the cloud.

What's New in Minitab 20.1



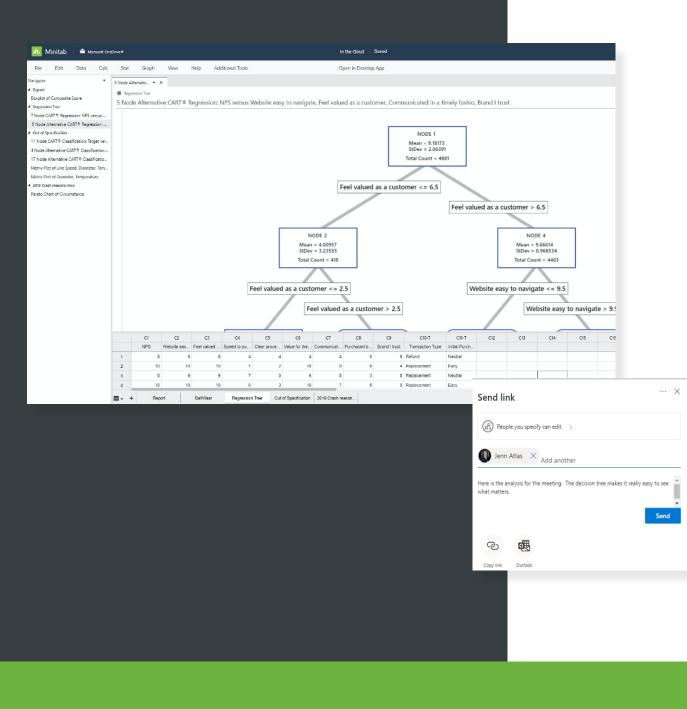


## Contents

Platform Extension	02			
Minitab Statistical Software Web App				
Interface Improvements	03			
Multi-Select in Navigator				
Statistical Methods	04			
Model Selection for Classification and Regression Trees				
Model Validation for Binary Logistic Regression and Poisson Regression				
Visualizations	06			
Update: Variability Chart				
New: Parallel Coordinates Plot				
New: Binned Scatterplot				
New: Heat Map				
New: Report				







# Accessible Now from Anywhere on the Cloud

- Access from nearly any device
- Available as both our desktop and new web app
- Share projects with a single click
- Access and store from Google Drive<sup>™</sup>, Microsoft OneDrive<sup>®</sup> or local files
- Single sign-on available



### Interface Improvement

#### Multi-Select in the Navigator

Improvement: Ability to select multiple items from the Navigator that was introduced in Minitab 19.1.

User Benefit: Selecting a range of output makes it easier for users who need to remove or send output from the Navigator.

**Summary:** One of the top feedback items from users, this improvement makes sending or removing multiple items from the navigator much easier.

Navigator		
⊿ DATA		
Heatmap of Duration		
Heatmap of Duration		
INTERNAL DATA		
▲ STUDY		
Parallel Coordinates Plot of Baselin		
One-Sample T: Time2		
Parallel Coordinates Plot of Baselin		
Parallel Coordinates Plot of Baselin		
Parallel Coordinates Plot of Baselin		
CRASH REASONS.MWX		
Heatmap of Property Damage		
Information on the Worksheet		
Histogram of Property Damage		

### Improved Model Selection for Classification and Regression Trees

Improvement: When evaluating alternate models, users now have an all-in-one view of the decision tree, scree plot and node details.

User Benefit: Users can see the decision tree, model and node details in a single view, making alternative model selection easier than ever.

Select an Alternative Tree...

Summary: When users choose to view an alternative tree, a single view provides them with detailed information for all possible models.





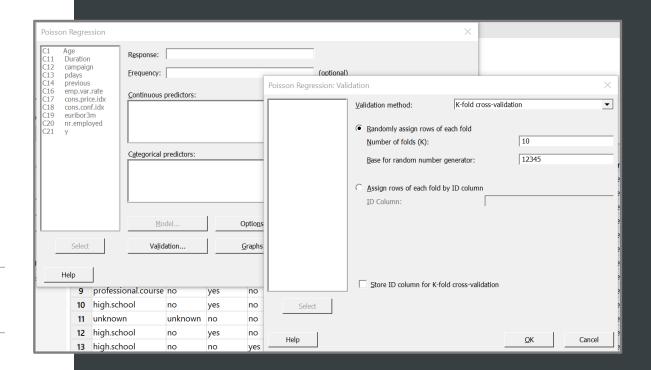
# Model Validation in Binary Logistic Regression and Poisson Regression

#### Variability Chart

**Improvement:** Model validation is now available in Binary Logistic and Poisson Regression.

User Benefit: Validation is the process of evaluating a trained model on a test data set. This feature makes it easier for users to create useful models.

**Summary:** Validation prevents model overfitting, which is an important aspect in machine learning. This feature is now available in the Predictive Analytics menu and within Stat-Regression, Stat-Binary Logistic Regression and Stat-Poisson Regression





### Visualizations

### Variability Chart

**Improvement:** Two improvements were added to the chart that was introduced in Minitab 19.2:

- The ability to specify multiple response variables for a given set of factors – this results in multiple graphs, one for each response.
- 2. The ability to brush individual observations.

User Benefit: It is easy to create multiple variability charts with a single click. Also, exploring data is easier with the added ability to brush individual observations.

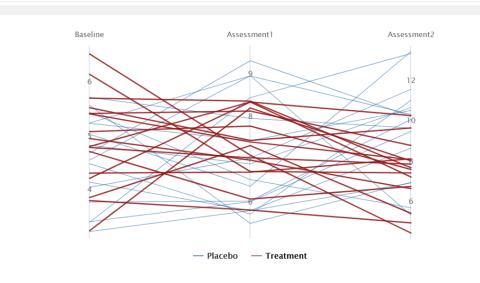
**Summary:** The Variability chart dialog can now support multiple responses, and brushing points is available when interacting with the graph.

Variab	ility Chart	$\times$
C1 C2 C3 C4	Circumstance Personal Injury Property Damage Region	Responses:
Ц н	Select	Options <u>O</u> K Cancel



#### STUDY

#### Parallel Coordinates Plot of Baseline, Assessment1, Assessment2



Show All | Hide All

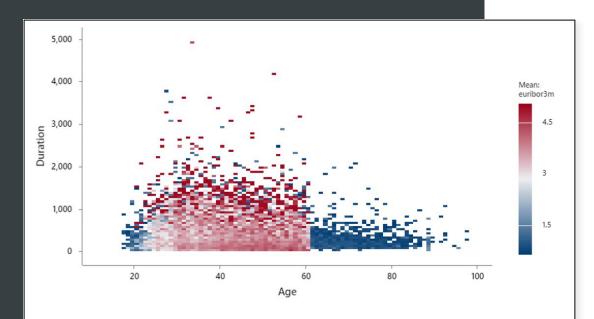
## New Visualizations

#### **Parallel Coordinates Plot**

**Addition:** A parallel coordinates plot is a graph that displays multivariate numerical data, making it easy to visualize multiple dimensions.

User Benefit: Parallel plots represent high dimensional data as a two-dimensional visualization. Data is represented in the form of a line making it easy to visualize trends.

**Summary:** The parallel coordinates plot is an efficient way to visualize multidimensional and multivariate data.



### New Visualizations

#### **Binned Scatterplot**

Addition: A binned scatterplot is a visual to display the relationship between two continuous variables when the dataset contains many observations. The gradient can be defined by observation frequency or by the mean of another variable.

User Benefit: Using a gradient to differentiate the density of data on a scatterplot makes it easier to communicate information to users. Users can also define the gradient as an average of another variable, providing additional flexibility for the visualization.



**Summary:** Binned scatterplots create meaningful graphics when displaying information for large data sets.



### CRASH REASONS.MWX Heatmap of Property Damage



## New Visualizations

#### Heat Map

**Improvement:** A heat map is a visual to display the impact of multiple categorical variables on a metric. The multiple categorical variables are displayed in a table layout with a gradient to display a function of a metric (e.g., percent defects, average customer satisfaction rating).

User Benefit: Heat maps identify areas of interest. They can quickly uncover scenarios that lead to a high or low values.

#### Summary:

Heatmaps are located in the Graph menu, between the bar and pie Charts. When you have a large number of factor levels, they may be easier than a bar chart to communicate areas that are different.

Minitab 🚬 🛛



### Update

#### Report

Addition: A Report within a Minitab project.

User Benefit: Create and view reports directly within your Minitab Project file, making it easy to organize results. Reports are customizable and support the aggregation and curation of live-linked Minitab tables and graphs. Users can also add annotations to a Report.

**Summary:** Reports can be easily created within Minitab projects and are easily discovered in the Navigator. With a single click, users can send to Microsoft Word, Microsoft PowerPoint, Companion by Minitab or Minitab Workspace.

